



Dkt. 72067-A-PCT-US/JPW/BJA/ML

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Jingyue Ju
U.S. Serial No. : 10/591,520
International Filing Date : March 3, 2005
For : PHOTOCLEAVABLE FLUORESCENT
NUCLEOTIDES FOR DNA SEQUENCING ON
CHIP CONSTRUCTED BY SITE-SPECIFIC
COUPLING CHEMISTRY

1185 Avenue of the Americas
New York, New York 10036
May 7, 2007

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

In accordance with their duty of disclosure under 37 C.F.R. §1.56, applicants direct the Examiner's attention to the following items which are listed on the attached Form PTO-1449 (Exhibit A). Items 1-50 are U.S. Patents or U.S. Patent Application Publications. As permitted by 37 C.F.R. 1.98(a)(2)(ii), no copies of these items are included herewith. Copies of references 51-149 are attached hereto as Exhibits 1-99, respectively.

1. U.S. Patent No. 4,824,775, issued April 25, 1989, Dattagupta;
2. U.S. Patent No. 5,118,605, issued June 2, 1992, Urdea;
3. U.S. Patent No. 5,174,962, issued March 3, 1999, Ju;

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.R./

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4. U.S. Patent No. 5,599,675, issued February 4, 1997, Brenner;
5. U.S. Patent No. 5,654,419, issued August 5, 1997, Mathies;
6. U.S. Patent No. 5,728,528, issued March 17, 1998, Mathies;
7. U.S. Patent No. 5,763,594, issued June 9, 1998, Hiatt et al.;
8. U.S. Patent No. 5,770,367, issued June 23, 1998, Southern;
9. U.S. Patent No. 5,789,167, issued August 4, 1998, Konrad;
10. U.S. Patent No. 5,804,386, issued September 8, 1998, Ju;
11. U.S. Patent No. 5,808,045, issued September 15, 1998, Hiatt et al.;
12. U.S. Patent No. 5,814,454, issued October 29, 1998, Ju;
13. U.S. Patent No. 5,834,203, issued November 10, 1998, Katzir;
14. U.S. Patent No. 5,849,542, issued December 15, 1998, Reeve et al.;
15. U.S. Patent No. 5,853,992, issued December 29, 1998, Glazer;

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16. U.S. Patent No. 5,869,255, issued February 9, 1999, Mathies;
17. U.S. Patent No. 5,872,244, issued February 16, 1999, Hiatt et al.
18. U.S. Patent No. 5,876,936, issued December 29, 1992, Ju ;
19. U.S. Patent No. 5,885,775, issued March 23, 1999, Haff et al.;
20. U.S. Patent No. 5,945,283, issued August 31, 1999, Kwok;
21. U.S. Patent No. 5,952,180, issued September 14, 1999, Ju;
22. U.S. Patent No. 6,028,190, issued February 28, 2000, Mathies;
23. U.S. Patent No. 6,046,005, issued April 4, 2000, Ju;
24. U.S. Patent No. 6,074,823, issued June 13, 2000, Hubert;
25. U.S. Patent No. 6,136,543, issued October 24, 2000, Anazawa et al.;
26. U.S. Patent No. 6,197,557, issued March 6, 2001, Markarov et al.;
27. U.S. Patent No. 6,214,987, issued April 10, 2001, Hiatt et al.;
28. U.S. Patent No. 6,218,118, issued April 17, 2001, Sampson;

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29. U.S. Patent No. 6,232,465, issued May 15, 2001, Hiatt et al.;
30. U.S. Patent No. 6,312,893, issued November 6, 2001, Van Ness et al.;
31. U.S. Patent No. 6,316,230, issued November 13, 2001, Egholm;
32. U.S. Patent No. 6,361,940 issued March 26, 2002, Van Ness et al.;
33. U.S. Patent No. 6,613,508, issued September 2, 2003, Ness et al.;
34. U.S. Patent No. 6,627,748, issued September 30, 2003, Ju et al.;
35. U.S. Patent No. 6,664,079 issued December 16, 2003, Ju et al.;
36. U.S. Patent No. 6,664,399, issued December 16, 2003, Sabesan;
37. U.S. Patent No. 6,787,308, issued September 7, 2004, Balasubramanian et al.;
38. U.S. Patent No. 6,833,246, issued December 21, 2004, Balasubramanian;
39. U.S. Patent No. 7,057,026, issued June 6, 2006, Barnes et al.;

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40. U.S. Patent No. 7,074,597, issued July 11, 2006, Ju;
41. U.S. Application Publication No. 2002/0168642 A1, published November 14, 2002 (Drukier);
42. U.S. Application Publication No. 2003/0008285 A1, published January 9, 2003 (Fischer);
43. U.S. Application Publication No. 2003/0022225 A1, published January 30, 2003 (Monforte et al.);
44. U.S. Application Publication No. 2003/0027140, published February 6, 2003 (Ju et al.);
45. U.S. Application Publication No. 2003/0044871, published March 6, 2003 (Cutsforth et al.);
46. U.S. Application Publication No. 2004/0185466, published September 23, 2004 (Ju et al.);
47. U.S. Application Publication No. 2005/0032081, published February 10, 2005 (Ju et al.);
48. U.S. Application Publication No. 2006/0057565, published March 16, 2006 (Ju et al.);
49. U.S. Application Publication No. 2006/0252938, published November 9, 2006 (Sava et al.);
50. U.S. Application Publication No. 2006/0003352, published January 5, 2006 (Lipkin et al.);
51. PCT International Publication No. WO 91/06678, May 16, 1991 (**Exhibit 1**);

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52. PCT International Publication No. WO 00/53805, September 14, 2000 (**Exhibit 2**);
53. PCT International Publication No. WO 01/92284, December 6, 2001 (**Exhibit 3**);
54. PCT International Publication No. WO 01/27625 A1, published April 19, 2001 (**Exhibit 4**);
55. PCT International Publication No. WO 02/079519 A1, published October 10, 2002 (**Exhibit 5**);
56. PCT International Publication No. WO 02/22883 A1, published March 21, 2002 (**Exhibit 6**);
57. PCT International Publication No. WO 02/29003, published April 11, 2002 (**Exhibit 7**);
58. PCT International Publication No. WO 04/007773, published January 22, 2004 (**Exhibit 8**);
59. PCT International Publication No. WO 04/055160, published January 22, 2004 (**Exhibit 9**);
60. PCT International Publication No. WO 05/084367, published September 15, 2005 (**Exhibit 10**);
61. PCT International Publication No. WO 06/073436, published July 13, 2006 (**Exhibit 11**);
62. PCT International Publication No. WO 07/002204, published January 4, 2007 (**Exhibit 12**);

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65. Badman, E. R. et al. (2000) A Parallel Miniature Cylindrical Ion Trap Array. *Anal. Chem.* 72:3291-3297 (**Exhibit 15**);
66. Badman, E. R. et al. (2000) Cylindrical Ion Trap Array with Mass Selection by Variation in Trap Dimensions. *Anal. Chem.* 72:5079-5086 (**Exhibit 16**);
67. Benson, S. C., Mathies, R. A. and Glazer, A. N. (1993) Heterodimeric DNA-binding dyes designed for energy transfer: stability and applications of the DNA complexes. *Nucleic Acids Res.* 21:5720-5726 (**Exhibit 17**);
68. Benson, S. C., Singh, P. and Glazer, A. N. (1993) Heterodimeric DNA-binding dyes designed for energy transfer: synthesis and spectroscopic properties. *Nucleic Acids Res.* 21:5727-5735 (**Exhibit 18**);
69. Burgess, K. et al. (1997) Photolytic Mass Laddering for Fast Characterization of Oligomers on Single Resin Beads. *J. Org. Chem.* 62:5662-5663 (**Exhibit 19**);
70. Canard, B. et al. (1995) Catalytic editing properties of DNA polymerases. *Proc. Natl. Acad. Sci. USA* 92:10859-10863 (**Exhibit 20**);
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chemistry and its uses. *Science* 230:281-285 (**Exhibit 21**);

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(**Exhibit 28**) ;

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84. Lee, L. G. et al. (1997) New energy transfer dyes for DNA Sequencing. *Nucleic Acids Res.* 25:2816-2822 (**Exhibit 34**) ;
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88. Metzker, M. L., et al. (1994) Termination of DNA synthesis by novel 3'-modified deoxyribonucleoside 5'-triphosphates. *Nucleic Acids Res.* 22:4259-4267 (**Exhibit 38**);
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93. Rosenblum, B. B. et al. (1997) New dye-labeled terminators for improved DNA sequencing patterns. *Nucleic Acids Res.* 25:4500-4504 (**Exhibit 43**);
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95. Ross, P. L. et al. (1997) Discrimination of Single-Nucleotide Polymorphisms in Human DNA Using Peptide Nucleic Acid Probes Detected by MALDI-TOF Mass Spectrometry. *Anal. Chem.* 69:4197-4202 (**Exhibit 45**);
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101. Woolley, A. T. et al. (1997) High-Speed DNA Genotyping Using Microfabricated Capillary Array Electrophoresis Chips. *Anal. Chem.* 69:2181-2186 (**Exhibit 51**);
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112. Jingyue Ju, et al., (1996) "Cassette labeling for facile construction of energy transfer fluorescent primers", *Nuc. Acids Res.* 24(6):1144-1148 (**Exhibit 62**);
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116. Kolb et al., (2001) "Click Chemistry: Diverse Chemical Function From a Few Good Reactions", *Angew. Chem. Int. Ed.* 40:2004-2021 (**Exhibit 66**);

117. Lewis et al., (2002) "Click Chemistry in Situ: Acetylcholinesterase as a Reaction Vessel for the Selective Assembly of a Femtomolar Inhibitor from an Array of Building Blocks", *Angew. Chem. Int. Ed.*, 41 (6):1053-1057 (**Exhibit 67**);

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122. Wendy S Jen, John J.M. Wiener, and David W.C. MacMillan, (2000) "New Strategies for Organic Catalysis: The First Enantioselective Orgaocatalytic 1,3-Dipolar Cycloaddition" J. Am. Chem. Soc., 122, 9874-9875 (**Exhibit 72**);
123. Supplementary European Search Report issued February 16, 2004 in connection with European Patent Application No. 01 97 7533 (**Exhibit 73**);
124. Supplementary European Search Report issued February 9, 2007 in connection with European Patent Application No. 03 76 4568.6 (**Exhibit 74**);
125. Supplementary European Search Report issued May 25, 2005 in connection with European Patent Application No. 02 72 8606.1 (**Exhibit 75**);
126. Supplementary European Search Report issued June 7, 2005 in connection with European Patent Application No. 01 96 8905 (**Exhibit 76**);
127. International Preliminary Examination Report issued on 3/18/05 in connection with PCT/US03/21818 (**Exhibit 77**);
128. International Preliminary Examination Report issued on 4/3/03 in connection with PCT/US01/31243 (**Exhibit 78**);
129. International Preliminary Examination Report issued on

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2/25/03 in connection with PCT/US01/28967 (**Exhibit 79**) ;

130. International Preliminary Examination Report issued on 3/17/03 in connection with PCT/US02/09752 (**Exhibit 80**) ;
131. International Preliminary Report on Patentability issued on 9/5/06 in connection with PCT/US05/006960 (**Exhibit 81**) ;
132. International Search Report issued 5/13/02 in connection with PCT/US01/31243 (**Exhibit 82**) ;
133. International Search Report issued 1/23/02 in connection with PCT/US01/28967 (**Exhibit 83**) ;
134. International Search Report issued 9/18/02 in connection with PCT/US02/09752 (**Exhibit 84**) ;
135. International Search Report issued 9/26/03 in connection with PCT/US03/21818 (**Exhibit 85**) ;
136. International Search Report issued 6/8/04 in connection with PCT/US03/39354 (**Exhibit 86**) ;
137. International Search Report issued 11/4/05 in connection with PCT/US05/06960 (**Exhibit 87**) ;
138. International Search Report issued 12/15/06 in connection with PCT/US05/13883 (**Exhibit 88**) ;
139. Written Opinion of the International Searching Authority issued 10/27/05 in connection with PCT/US05/06960 (**Exhibit 89**) ;

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140. Written Opinion of the International Searching Authority issued 12/15/06 in connection with PCT/US05/13883 (**Exhibit 90**);

141. Elango, N. et al. (1983) "Amino Acid Sequence of Human Respiratory Syncytial Virus Nucleocapsid Protein" Nucleic Acids Research, 11(17):5941-5951 (**Exhibit 91**);

142. Buck, G.A. et al. (1999) "Design Strategies and Performance of Custom DNA Sequencing Primers", BioTechniques, 27(3):528-536 (**Exhibit 92**);

143. Hafliger, D. et al. (1997) "Seminested RT-PCR Systems for Small Round Structured Viruses and Detection of Enteric Viruses in Seafood", International Journal of Food Microbiology, 37:27-36 (**Exhibit 93**);

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145. Kokoris, M. et al. (2000) "High-throughput SNP Genotyping With the Masscode System", Molecular Diagnosis, 5(4):329-340 (**Exhibit 95**);

146. Kim, S. et al. (2003) "Multiplex Genotyping of the Human β 2-adrenergic Receptor Gene Using Solid-phase Capturable Dideoxynucleotides and Mass Spectrometry", Analytical Biochemistry, 316:251-258 (**Exhibit 96**);

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148. PCT International Publication No. WO 04/018497, published
March 4, 2004 (**Exhibit 98**); and

149. PCT International Publication No. WO 04/018493, published
March 4, 2004 (**Exhibit 99**).

This Supplemental Information Disclosure Statement supplements the information disclosure statement filed by applicant on September 1, 2006 in connection with the above-identified application.

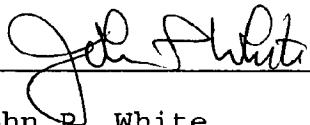
This Supplemental Information Disclosure Statement is being submitted under 37 C.F.R. §1.97(b). Applicant requests that the Examiner review the items listed and make them of record in the subject application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorneys invite the Examiner to telephone them at the number provided below.

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No fee is deemed necessary in connection with the filing of this Supplemental Information Disclosure Statement. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to:	
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John P. White	Date
Reg. No. 28,678	

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Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeINFORMATION DISCLOSURE STATEMENT
(Use several sheets if necessary)

Application Number	10/591,520
Filing Date	March 3, 2005
First Named Inventor	Jingyue Ju
Art Unit	
Examiner Name	
Attorney Docket No.	72067-A-PCT-US/JPW/BJA/ML

U.S. PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
/J.R./		4,824,775	04-25-1989	Dattagupta
		5,118,605	06-02-1992	Urdea
		5,174,962	12-29-1992	Brennan
		5,302,509	04-12-1994	Cheeseman
		5,599,675	02-04-1997	Brenner
		5,654,419	08-5-1997	Mathies
		5,728,528	03-17-1998	Mathies
		5,763,594	06-09-1998	Hiatt
		5,770,367	06-23-1998	Southern
		5,789,167	08-04-1998	Konrad
		5,804,386	09-08-1998	Ju
		5,808,045	09-15-1998	Hiatt
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Applicant: Jingyue Ju
Serial No.: 10/591,520
Filed: March 3, 2005

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Application Number	10/591,520
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First Named Inventor	Jingyue Ju
Art Unit	
Examiner Name	
Attorney Docket No.	72067-A-PCT-US/JPW/BJA/ML

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.R./

Form PTO-1449	U.S. Department of Commerce	Application Number	10/591,520
	Patent and Trademark Office	Filing Date	March 3, 2005
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		First Named Inventor	Jingyue Ju
		Art Unit	
		Examiner Name	
		Attorney Docket No.	72067-A-PCT-US/JW/BJA/ML

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Supplementary European Search Report issued June 7, 2005 in connection with European Patent Application No. 01 96 8905	
		International Preliminary Examination Report issued on 3/18/05 in connection with PCT/US03/21818	
		International Preliminary Examination Report issued on 4/3/03 in connection with PCT/US01/31243	
		International Preliminary Examination Report issued on 2/25/03 in connection with PCT/US01/28967	
		International Preliminary Examination Report issued on 3/17/03 in connection with PCT/US02/09752	
		International Preliminary Report on Patentability issued on 9/5/06 in connection with PCT/US05/006960	
		International Search Report issued 5/13/02 in connection with PCT/US01/31243	
		International Search Report issued 1/23/02 in connection with PCT/US01/28967	
		International Search Report issued 9/18/02 in connection with PCT/US02/09752	
		International Search Report issued 9/26/03 in connection with PCT/US03/21818	
		International Search Report issued 6/8/04 in connection with PCT/US03/39354	
		International Search Report issued 11/4/05 in connection with PCT/US05/06960	
		International Search Report issued 12/15/06 in connection with PCT/US05/13883	

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Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeINFORMATION DISCLOSURE STATEMENT
(Use several sheets if necessary)

Application Number	10/591,520
Filing Date	March 3, 2008
First Named Inventor	Jingyue Ju
Art Unit	
Examiner Name	
Attorney Docket No.	72067-A PCT-US/JP/BJA/ML

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		Written Opinion of the International Searching Authority issued 10/27/05 in connection with PCT/US05/03960	
		Written Opinion of the International Searching Authority issued 12/15/06 in connection with PCT/US05/13883	
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